

IN THE CLAIMS:

1. A surface covering comprising two or more polymeric planks having edges, wherein said planks are connected to each other by a bonding agent, wherein said bonding agent is present on at least one of the edges of at least one of the planks, and wherein said
5 bonding agent comprises at least one solvent capable of at least bonding the edges of the planks.

2. The surface covering of claim 1, wherein said bonding agent consists essentially of tetrahydrofuran.

3. The surface covering of claim 1, wherein said bonding agent consists of
10 tetrahydrofuran.

4. The surface covering of claim 1, wherein said bonding agent comprises tetrahydrofuran, cyclohexanone, methylene chloride, dimethyl formamide, toluene, acetone, ethylene dichloride, methyl ethyl ketone, n-methyl pyrrolidone, methyl isobutyl ketone, dipropyl ketone, isophorone, methyl amyl ketone, nitrobenzene, methyl cyclohexanone,
15 acetonyl acetone, or combinations thereof.

5. The surface covering of claim 1, wherein said bonding agent is present on at least each edge of each thermoplastic plank connected together to another thermoplastic plank.

6. The surface covering of claim 1, wherein said bonding agent is present on
20 two opposite edges of each individual plank.

7. A method to connect two or more thermoplastic planks comprising the step of applying a bonding agent to at least one edge of a plank and then connecting an edge of a second plank to said edge having said bonding agent to connect the planks together;

wherein said bonding agent comprises at least one solvent capable of
25 bonding at least the edges of the planks.

8. The method of claim 7, wherein said bonding agent comprises tetrahydrofuran.

9. The method of claim 7, wherein said bonding agent comprises tetrahydrofuran, cyclohexanone, methylene chloride, dimethyl formamide, toluene, acetone,
30 ethylene dichloride, methyl ethyl ketone, n-methyl pyrrolidone, methyl isobutyl ketone, dipropyl ketone, isophorone, methyl amyl ketone, nitrobenzene, methyl cyclohexanone, acetonyl acetone, or combinations thereof.

10. The method of claim 7, wherein said bonding agent consists essentially of tetrahydrofuran.

11. The method of claim 7, wherein said bonding agent consists of tetrahydrofuran.

5 12. The method of claim 7, wherein said bonding agent is applied to each edge of each thermoplastic plank connected to another thermoplastic plank.

13. The method of claim 7, wherein said bonding agent is applied to two or more edges of at least one plank.

14. The method of claim 7, wherein said bonding agent is applied with a brush.

10 15. The method of claim 7, wherein said bonding agent is applied by spraying.

16. The method of claim 7, wherein said bonding agent is applied by dipping at least one edge of said plank in a container containing said bonding agent.

17. The method of claim 7, wherein said bonding agent is applied with a syringe-type applicator.

15 18. The method of claim 7, wherein said step of applying said bonding agent is repeated to connect a multiplicity of planks together to form a surface covering.

19. A surface covering comprising two or more polymeric planks and splines located between at least a portion of said polymeric planks, wherein at least a portion of said planks and splines are connected to each other by a bonding agent comprising at least one solvent capable of bonding at least the spline and plank together, wherein said bonding agent is applied to at least one of the edges of at least one of the individual planks, splines, or both.

20. The surface covering of claim 19, wherein said bonding agent comprises tetrahydrofuran, cyclohexanone, methylene chloride, dimethyl formamide, toluene, acetone, ethylene dichloride, methyl ethyl ketone, n-methyl pyrrolidone, methyl isobutyl ketone, dipropyl ketone, isophorone, methyl amyl ketone, nitrobenzene, methyl cyclohexanone, acetonyl acetone, or combinations thereof.

21. A method to connect two or more thermoplastic planks with at least one spline connecting the planks comprising the step of applying a bonding agent comprising at least one solvent capable of at least bonding the plank and spline together to at least one edge of a plank, a spline connecting planks, or both, and then connecting an edge of a second plank to said spline to connect the planks together.

22. The surface covering of claim 1, wherein said polymeric plank is in the shape of a tile.

23. The surface covering of claim 1, wherein said polymeric plank has a polymeric core with a laminate affixed on the surface of the core.

5 24. A method to connect two or more thermoplastic planks comprising the step of connecting two or more planks together wherein joints are formed between the connected planks; and applying a bonding agent to said joints;

wherein said bonding agent comprises at least one solvent capable of at least bonding the edges of the polymeric portion of the plank.

10 25. The method of claim 24, wherein said bonding agent comprises tetrahydrofuran.

26. The method of claim 24, wherein said bonding agent is applied through a nozzle.

15 27. The surface covering of claim 1, wherein said bonding agent comprises at least two different solvents capable of at least bonding the edges of the polymeric portion of the plank.

28. The method of claim 7, wherein said bonding agent comprises at least two different solvents capable of at least bonding the edges of the polymeric portion of the plank.

20 29. A method to connect two or more thermoplastic planks with at least one spline connecting the planks comprising the step of preassembling the polymeric planks with at least one spline to form joints at least between the spline and planks;

applying a bonding agent to the joints to bond the planks and spline together; wherein said bonding agent comprises at least one solvent capable of at least bonding the
25 edges of the polymeric portion of the plank, spline, or both.

30. The method of claim 29, wherein said bonding agent is applied through a nozzle.